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EXAMINER

PERSINO, RAYMOND B

ART UNIT PAPER NUMBER

2682

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,592

Applicant(s)

SHOJI ET AL.

Examiner

Raymond B. Persino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

FIRST GROUP OF REJECTIONS (CLAIMS 1-10)

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by SCHOBBER (US 4,471,493 A).

Regarding claim 1, SCHOBBER discloses a foldable portable telephone having first and second casings coupled with each other via a hinge portion, comprising: first and second electronic circuit portions provided within said first and second casings, respectively; and first and second shield members for shielding said first and second electronic circuit portions, respectively, at least one of said first and second shield members additionally serving as an antenna for said portable telephone (figure 2 and column 2 line 34 to column 3 line 5). It is noted that this rejection is maintained because of the applicant's use of the word "shield" in the claim. For this claim rejection, "shield" is interpreted to mean a protective element. To overcome this rejection, the examiner recommends amending the claim to include the subject matter of the shield protecting the electronic circuit components from external noise and preventing noise generated in

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the electronic circuit components from leaking outward. However, this amendment alone would not overcome the below rejection based upon 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1).

Regarding claim 2, see the rejection of the parent claim concerning the subject matter this claim depends from. SCHOBBER further discloses that said first electronic circuit portion includes a communication circuit for communicating with a base station using said second shield member as the antenna (figure 2 and column 2 line 34 to column 3 line 5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBBER (US 4,471,493 A) in view of ISOHATALA et al (US 6,252,554 B1).

Regarding claim 3, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBBER does not disclose that said second shield member includes a slit for adjusting its characteristics as the antenna. ISOHATALA et al discloses a shield member includes a slit for adjusting its characteristics as the antenna (column 2 lines 62-65). Therefore it would have been

obvious to a person of ordinary skill in the art at the time the invention was made to include a slit for adjusting its characteristics as the antenna. Doing so would allow for optimization of the antenna characteristics that would result in a more efficient antenna.

Regarding claim 4, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose that said second shield member includes an extended portion for adjusting its characteristics as the antenna. ISOHATALA et al discloses a shield member that includes an extended portion for adjusting its characteristics as the antenna (figure 2a and column 2 line 54 to column 3 line 24). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an extended portion for adjusting its characteristics as the antenna. Doing so would allow for optimization of the antenna characteristics that would result in a more efficient antenna.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBER (US 4,471,493 A) in view of an examiner's official notice.

Regarding claim 5, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose an antenna matching circuit connected between said communication circuit and said second shield member. The examiner takes official notice that it was known in the art to use an antenna matching circuit. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an antenna matching circuit. The use of an antenna matching circuit increases the efficiency of an antenna.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBER (US 4,471,493 A) in view of TAMURA (EP 0 518 526 A).

Regarding claim 6, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose a first antenna matching circuit for matching when said portable telephone is unfolded; a second antenna matching circuit for matching when said portable telephone is folded; a detector for detecting whether said portable telephone is folded; and a switching circuit operating based on a detected result of said detector, for connecting said first antenna matching circuit between said communication circuit and said second shield member when said portable telephone is unfolded, and for connecting said second antenna matching circuit between said communication circuit and said second shield member when said portable telephone is folded. TAMURA discloses a first antenna matching circuit for matching when said portable telephone is unfolded; a second antenna matching circuit for matching when said portable telephone is folded; a detector for detecting whether said portable telephone is folded; and a switching circuit operating based on a detected result of said detector, for connecting said first antenna matching circuit between said communication circuit and said second shield member when said portable telephone is unfolded, and for connecting said second antenna matching circuit between said communication circuit and said second shield member when said portable telephone is folded (figures 1-4 and column 3 line 27 to column 4 line 36). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the teaching of SCHOBER to be modified per TAMURA. Having different matching

circuits being used, depending on the state of the phone, allows enables the antenna to be more effectively matched.

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBER (US 4,471,493 A) in view of VANNATTA et al (US 5,649,306 A).

Regarding claim 7, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose an antenna mounted to said first casing and having its feeding portion connected to said communication circuit, said communication circuit communicating with said base station via said second shield member and said antenna. VANNATTA et al discloses an antenna mounted to said first casing and having its feeding portion connected to said communication circuit, said communication circuit communicating with said base station via said second shield member and said antenna (figures 1, 3, 4 and 6 and column 6 line 18-43). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the teaching of SCHOBER to be modified per VANNATTA et al. Having a feeding portion connected to a communications circuit allows the antenna to receive the energy to be transmitted to the base station and allows the communications circuit to receive the energy received from the base station.

Regarding claim 8, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose that the antenna is mounted to said second casing and having its feeding portion connected to said second shield member, said communication circuit communicating with said base station via said second shield member and said antenna. VANNATTA et al discloses

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having an antenna mounted to said second casing and having its feeding portion connected to said second shield member, said communication circuit communicating with said base station via said second shield member and said antenna (figures 1, 3, 4 and 6 and column 6 line 18-43). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the teaching of SCHOBBER to be modified per VANNATTA et al. Having a feeding portion connected to a communications circuit allows the antenna to receive the energy to be transmitted to the base station and allows the communications circuit to receive the energy received from the base station.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBBER (US 4,471,493 A) in view of VANNATTA et al (US 5,649,306 A) and further in view of an examiner's official notice.

Regarding claim 9, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBBER does not disclose an antenna matching circuit connected between said communication circuit and said second shield member. The examiner takes official notice that it was known in the art to use an antenna matching circuit. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an antenna matching circuit. The use of an antenna matching circuit increases the efficiency of an antenna.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBBER (US 4,471,493 A) in view of GUMUSSOY (GB 2,327,572 A).

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Regarding claim 10, SCHOBBER discloses an antenna mounted to said first casing, said communication circuit communicating with said base station via either one of said antenna and said second shield member that is connected to said communication circuit by said switching circuit (figure 2 and column 2 line 34 to column 3 line 5). However, SCHOBBER does not disclose a detector for detecting whether a hand of a user of said portable telephone is touching said antenna; and a switching circuit operating based on a detected result of said detector, for connecting said communication circuit to said antenna when said user's hand is not touching said antenna, and for connecting said communication circuit to said second shield member when said user's hand is touching said antenna. GUMUSSOY discloses a detector for detecting whether a hand of a user of said portable telephone is touching said antenna; and a switching circuit operating based on a detected result of said detector, for connecting said communication circuit to said antenna when said user's hand is not touching said antenna, and for connecting said communication circuit to said second shield member when said user's hand is touching said antenna (page 4 line 6 to page 4 line 26). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify SCHOBBER per GUMUSSOY. Using a hand detector allows the more appropriate antenna to be used.

SECOND GROUP OF REJECTIONS (CLAIMS 1-15)

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-3 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1).

Regarding claim 1, DANIELS discloses a foldable portable telephone having first and second casings coupled with each other via a hinge portion, comprising: first and second electronic circuit portions provided within said first and second casings, respectively; and first and second shield members for shielding said first and second electronic circuit portions, respectively (figure 2(a) and column 6 line 26 to column 7 line 56). However, DANIELS does not disclose that at least one of said first and second shield members is additionally serving as an antenna for said portable telephone. PIRILA et al discloses a shield member that is additionally serving as an antenna for said portable telephone (column 2 lines 3-61). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify DANIELS such that at least one of said first and second shield members is additionally serving as an antenna for said portable telephone. Motivation to make the modification is that the modification makes it possible to produce the radio transceiver structure with

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one less part than before, and also PCB space is saved if virtually no extra space has to be allocated to the antenna parts and antenna-related transmissions lines (see PIRILA et al, column 2 lines 36-61). For this rejection it is being assumed that "shield" only means protecting the electronic circuit components from external noise and preventing noise generated in the electronic circuit components from leaking outward. See the above rejection of claim 1 based on 35 U.S.C. 102(b) as being anticipated by SCHOBBER (US 4,471,493 A).

Regarding claim 2, see the rejection of the parent claim concerning the subject matter this claim depends from. DANIELS further discloses that said first electronic circuit portion includes a communication circuit for communicating with a base station using the antenna on the second casing that has a shield (figure 2(a) and column 6 line 26 to column 7 line 56). PIRILA et al discloses a shield member that is additionally serving as an antenna for said portable telephone (column 2 lines 3-61). Thus the combination discloses said first electronic circuit portion includes a communication circuit for communicating with a base station using the second shield member as the antenna.

Regarding claim 3, see the rejection of the parent claim concerning the subject matter this claim depends from. PIRILA et al further discloses that said second shield member includes a slit for adjusting its characteristics as the antenna (see the slit on element 305 of figure 3).

Regarding claim 11, see the rejection of the parent claim concerning the subject matter this claim depends from. DANIELS further discloses that the first shield member

comprises a shield box containing the first communication circuit portion (figure 2(a) and column 6 line 26 to column 7 line 56).

Regarding claim 12, see the rejection of the parent claim concerning the subject matter this claim depends from. DANIELS further discloses that the second shield member comprises a shield box containing the second communication circuit portion (figure 2(a) and column 6 line 26 to column 7 line 56).

Regarding claim 13, see the rejection of the parent claim concerning the subject matter this claim depends from. DANIELS further discloses that the first shield member comprises a shield box containing the first communication circuit portion (figure 2(a) and column 6 line 26 to column 7 line 56).

Regarding claim 14, see the rejection of the parent claim concerning the subject matter this claim depends from. DANIELS further discloses that the second electronic circuit portion includes a transmitting circuit for transmitting signals and that those signals are coupled to an antenna in the first casing (first shield member per PIRILA et al). It is inherent that this coupling be via the hinged portion for there is no other contact pathway. Further, it is inherent that a transmitting circuit be coupled to ground layer via a ground terminal of the transmitting circuit because an electric circuit requires a reference voltage to operate.

Regarding claim 15, see the rejection of the parent claim concerning the subject matter this claim depends from. DANIELS further discloses that the first casing is an upper casing and said second casing is a lower casing, and said second casing is

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adopted to be held in a users hand (figure 2(a) and column 6 line 26 to column 7 line 56).

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1) and further in view of ISOHATALA et al (US 6,252,554 B1).

Regarding claim 4, see the rejection of the parent claim concerning the subject matter this claim depends from. However, the prior art cited in the rejection of the parent claim does not disclose that said second shield member includes an extended portion for adjusting its characteristics as the antenna. ISOHATALA et al discloses a shield member that includes an extended portion for adjusting its characteristics as the antenna (figure 2a and column 2 line 54 to column 3 line 24). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an extended portion for adjusting its characteristics as the antenna. Doing so would allow for optimization of the antenna characteristics that would result in a more efficient antenna.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1) and further in view of an examiner's official notice.

Regarding claim 5, see the rejection of the parent claim concerning the subject matter this claim depends from. However, the prior art cited in the rejection of the parent claim does not disclose an antenna matching circuit connected between said communications circuit and said second shield member. The examiner takes official

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notice that it was known in the art to use an antenna matching circuit. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an antenna matching circuit. The use of an antenna matching circuit increases the efficiency of an antenna.

14. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1) and further in view of TAMURA (EP 0 518 526 A).

Regarding claim 6, see the rejection of the parent claim concerning the subject matter this claim depends from. However, the prior art cited in the rejection of the parent claim does not disclose a first antenna matching circuit for matching when said portable telephone is unfolded; a second antenna matching circuit for matching when said portable telephone is folded; a detector for detecting whether said portable telephone is folded; and a switching circuit operating based on a detected result of said detector, for connecting said first antenna matching circuit between said communication circuit and said second shield member when said portable telephone is unfolded, and for connecting said second antenna matching circuit between said communication circuit and said second shield member when said portable telephone is folded.

TAMURA discloses a first antenna matching circuit for matching when said portable telephone is unfolded; a second antenna matching circuit for matching when said portable telephone is folded; a detector for detecting whether said portable telephone is folded; and a switching circuit operating based on a detected result of said detector, for connecting said first antenna matching circuit between said communication circuit and

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said second shield member when said portable telephone is unfolded, and for connecting said second antenna matching circuit between said communication circuit and said second shield member when said portable telephone is folded (figures 1-4 and column 3 line 27 to column 4 line 36). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use TAMURA's modification. Having different matching circuits being used, depending on the state of the phone, allows enables the antenna to be more effectively matched.

15. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1) and further in view of VANNATTA et al (US 5,649,306 A).

Regarding claim 7, see the rejection of the parent claim concerning the subject matter this claim depends from. However, the prior art cited in the rejection of the parent claim does not disclose an antenna mounted to said first casing and having its feeding portion connected to said communication circuit, said communication circuit communicating with said base station via said second shield member and said antenna. VANNATTA et al discloses an antenna mounted to said first casing and having its feeding portion connected to said communication circuit, said communication circuit communicating with said base station via said second shield member and said antenna (figures 1, 3, 4 and 6 and column 6 line 18-43). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use VANNATTA et al's modification. Having a feeding portion connected to a communications circuit allows the antenna to receive the energy to be transmitted to the

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base station and allows the communications circuit to receive the energy received from the base station.

Regarding claim 8, see the rejection of the parent claim concerning the subject matter this claim depends from. However, the prior art cited in the rejection of the parent claim does not disclose that the antenna is mounted to said second casing and having its feeding portion connected to said second shield member, said communication circuit communicating with said base station via said second shield member and said antenna. VANNATTA et al discloses having an antenna mounted to said second casing and having its feeding portion connected to said second shield member, said communication circuit communicating with said base station via said second shield member and said antenna (figures 1, 3, 4 and 6 and column 6 line 18-43). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use VANNATTA et al's modification. Having a feeding portion connected to a communications circuit allows the antenna to receive the energy to be transmitted to the base station and allows the communications circuit to receive the energy received from the base station.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1) and VANNATTA et al (US 5,649,306 A) and further in view of an examiner's official notice.

Regarding claim 9, see the rejection of the parent claim concerning the subject matter this claim depends from. However, the prior art cited in the rejection of the parent claim does not disclose an antenna matching circuit connected between said

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communications circuit and said second shield member. The examiner takes official notice that it was known in the art to use an antenna matching circuit. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an antenna matching circuit. The use of an antenna matching circuit increases the efficiency of an antenna.

17. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1) and further in view of GUMUSSOY (GB 2,327,572 A).

Regarding claim 10, see the rejection of the parent claim concerning the subject matter this claim depends from. However, the prior art cited in the rejection of the parent claim does not disclose an antenna mounted to said first casing a detector for detecting whether a hand of a user of said portable telephone is touching said antenna; and a switching circuit operating based on a detected result of said detector, for connecting said communication circuit to said antenna when said user's hand is not touching said antenna, and for connecting said communication circuit to said second shield member when said user's hand is touching said antenna, said communication circuit communicating with said base station via either one of said antenna and said second shield member that is connected to said communication circuit by said switching circuit. GUMUSSOY discloses an antenna mounted to said first casing a detector for detecting whether a hand of a user of said portable telephone is touching said antenna; and a switching circuit operating based on a detected result of said detector, for connecting said communication circuit to said antenna when said user's hand is not

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touching said antenna, and for connecting said communication circuit to said second shield member when said user's hand is touching said antenna, said communication circuit communicating with said base station via either one of said antenna and said second shield member that is connected to said communication circuit by said switching circuit (page 4 line 6 to page 4 line 26). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use GUMUSSOY's modification. Using a hand detector allows the more appropriate antenna to be used.

Response to Arguments

18. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the shields) are recited in SCHOBBER (US 4,471,493 A). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The term "shield" may be interpreted to mean a protective element, thus the first group of rejections. The examiner understands that this position may be contrary to the position taken by the examiner in the interview on 11/4/2003. During the interview the examiner understood "shield" to mean "electromagnetic shield" in the context of the claims. However, upon reconsideration, the examiner does not believe the claim language precludes the interpretation of "shield" as meaning a protective element. The examiner apologizes for an inconvenience this causes and in the interest of fairness has

not made this office action final based upon of the rejections of group 1. Further, rejections have been made based upon the term "shield" meaning "electromagnetic shield." To overcome the interpretation of the term "shield" in the rejections of group 1, the examiner recommends amending claim 1 to include the subject matter that the shield protects the electronic circuit components from external noise and prevents noise generated in the electronic circuit components from leaking outward. However, this amendment alone would not overcome all outstanding rejections for claim 1 is now also rejected based upon 35 U.S.C. 103(a) as being unpatentable over DANIELS (US 5,335,366 A) in view of PIRILA et al (US 6,417,817 B1).

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

ORCHARD et al (US 6,014,113 A)

WILZ (US 6,204,825 B1)

PHILLIPS et al (US 5,561,437 A)

GARAY (US 4,992,799 A)

WANG (US 2002/0075185 A1)

SHOJI et al (US 6,633,262 B1)

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond B. Persino whose telephone number is (703)

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308-7528. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM.

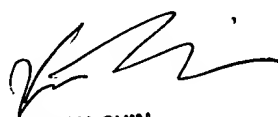
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond B. Persino
Examiner
Art Unit 2682

RP

RP


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600
2/23/04